**AIRLINES SATISFACTION SYSTEM THROUGH TWITTER REVIEW’S SENTIMENT ANALYSIS**

**TWITTER BOT PYTHON FILE - JUPYTER**

<https://drive.google.com/file/d/1nttw2K_weFK2RqZPXC__e1pZElZdk_hE/view?usp=sharing>

**CONCEPTUAL FLOW DIAGRAM**

**WEB CRAWLER**

**REVIEW DATA**

**VISUALIZATION**

**SENTIMENT ANALYSIS**

**RAW DATA**

**DATABASE**

**PROCESSED DATA**

**ER DIAGRAM**

Diagram

Description automatically generated

**TABLES POPULATED**

**USERS**

**Graphical user interface, text, application

Description automatically generated**

**TWEETS**

**Graphical user interface, text

Description automatically generated**

**AIRLINES**

**Graphical user interface, text

Description automatically generated**

**TWEET MENTION**

**Graphical user interface, text, email

Description automatically generated**

**SQL Statements for the conceptual model:**

**create database airline\_passenger\_satisfaction;**

**#SQL Statements for the conceptual model**

**#User Table:**

**CREATE TABLE USER(**

**twitter\_handle VARCHAR(100),**

**name VARCHAR(100),**

**profile\_image\_url VARCHAR(200),**

**description VARCHAR(300),**

**followers\_count BIGINT,**

**following\_count BIGINT,**

**PRIMARY KEY (twitter\_handle));**

**#Tweets Table:**

**CREATE TABLE TWEETS(**

**tweet\_id INT NOT NULL AUTO\_INCREMENT,**

**twitter\_handle VARCHAR(50),**

**tweet\_text TEXT,**

**profile\_image\_url VARCHAR(200),**

**like\_count integer,**

**created\_at DATETIME,**

**PRIMARY KEY (tweet\_id));**

**#Tweet\_Tags :**

**drop table TWEET\_TAGS;**

**CREATE TABLE TWEET\_TAGS(**

**tweet\_id INT NOT NULL AUTO\_INCREMENT ,**

**hashtags VARCHAR(200),**

**PRIMARY KEY (tweet\_id));**

**#Tweet\_Mentions Table:**

**drop table TWEET\_MENTIONS;**

**CREATE TABLE TWEET\_MENTIONS (**

**tweet\_id INT NOT NULL AUTO\_INCREMENT ,**

**source\_user text,**

**target\_user text,**

**PRIMARY KEY (tweet\_id)**

**);**

**#Airlines\_Table**

**drop table AIRLINES;**

**CREATE TABLE AIRLINES (**

**tweet\_id INT NOT NULL AUTO\_INCREMENT ,**

**airline VARCHAR(50),**

**name VARCHAR(50),**

**tweet\_text TEXT,**

**created\_at DATETIME,**

**user\_location VARCHAR(50),**

**PRIMARY KEY (tweet\_id)**

**);**

**#Airline\_Sentiment**

**CREATE TABLE AIRLINE\_SENTIMENT(**

**tweet\_id INT NOT NULL AUTO\_INCREMENT ,**

**airline\_sentiment VARCHAR(50),**

**airline\_sentiment\_scale double,**

**negative\_reason VARCHAR(50),**

**negative\_reason\_scale double,**

**airline VARCHAR(50),**

**name VARCHAR(50),**

**PRIMARY KEY (tweet\_id)**

**);**

**#Foreign Key Constraint**

**#Constraint for Tweet table:**

**ALTER TABLE TWEETS**

**ADD CONSTRAINT tweets\_fk1 FOREIGN KEY (twitter\_handle)**

**REFERENCES User(twitter\_handle);**

**ALTER TABLE TWEETS**

**ADD CONSTRAINT tweets\_fk2 FOREIGN KEY (profile\_image\_url)**

**REFERENCES User(profile\_image\_url);**

**#Constraint for Tweet\_Tags table:**

**ALTER TABLE TWEET\_TAGS**

**ADD CONSTRAINT Tweet\_Tags\_fk11 FOREIGN KEY (tweet\_id)**

**REFERENCES Tweets(tweet\_id);**

**#Constraint for Tweet\_Mentions table:**

**ALTER TABLE TWEET\_MENTIONS**

**ADD CONSTRAINT Tweet\_Tags\_fk3 FOREIGN KEY (tweet\_id)**

**REFERENCES Tweets(tweet\_id);**

**#Constraint for Tweet\_Mentions Airlines Table**

**ALTER TABLE AIRLINES**

**ADD CONSTRAINT Tweet\_Tags\_fk6 FOREIGN KEY (tweet\_id)**

**REFERENCES Tweets(tweet\_id);**

**#Constraint for Tweet\_Mentions Airlines Sentiment**

**ALTER TABLE AIRLINE\_SENTIMENT**

**ADD CONSTRAINT Tweet\_Tags\_fk7 FOREIGN KEY (tweet\_id)**

**REFERENCES Tweets(tweet\_id);**

**USE-CASE.**

**RELATIONAL-ALGEBRA EXPRESSIONS FOR THE USE CASES**

**SQL STATEMENTS**

Queries you must answer about your physical model (In Relational algebra & SQL):

1. What user posted this tweet?
2. When did the user post this tweet?
3. What tweets have this user posted in the past 24 hours?
4. How many tweets have this user posted in the past 24 hours?
5. When did this user join Twitter?
6. What keywords/ hashtags are popular?
7. What tweets are popular?